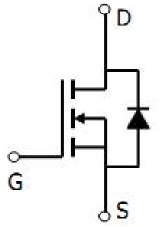
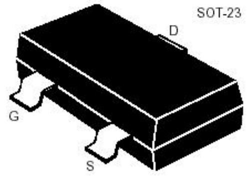
桂林斯壯桂微電子有限責任公司

Guilin Strong Micro-Electronics Co.,Ltd.

GM2308S

SOT-23 場效應晶體管(SOT-23 Field Effect Transistors)





N-Channel Enhancement-Mode MOS FETs
N 溝道增強型 MOS 場效應管

■MAXIMUM RATINGS 最大額定值

Characteristic 特性參數	Symbol 符號	Rat 額定值	Unit 單位
Drain-Source Voltage 漏極-源極電壓	BV_{DSS}	60	V
Gate- Source Voltage 柵極-源極電壓	V_{GS}	±20	V
Drain Current.continuous 漏極電流-連續	I_{DR}	2.3	A
Drain Current-pulsed 漏極電流-脉冲	I_{DRM}	6	A

■THERMAL CHARACTERISTICS 熱特性

Characteristic 特性	Symbol 符號	Rat 額定值	Unit 單位
Total Device Dissipation 總耗散功率 T_A=25℃環境溫度爲 25℃ Derate above25℃ 超過 25℃遞減	P_D	 900 3.8	 mW mW/℃
Thermal Resistance Junction to Ambient 熱阻	$R_{\theta JA}$	150	℃/W
Junction and Storage Temperature 結溫和儲存溫度	T_J, T_{stg}	150℃, -55to+150℃	

■DEVICE MARKING 打標

GM2308S=E8S

■ELECTRICAL CHARACTERISTICS 電特性

(T_A=25℃ unless otherwise noted 如無特殊說明，溫度爲 25℃)

Characteristic 特性參數	Symbol 符號	Min 最小值	Typ 典型值	Max 最大值	Unit 單位
Drain-Source Breakdown Voltage 漏極-源極擊穿電壓(I_D =250uA,V_{GS}=0V)	BV_{DSS}	60	—	—	V
Gate Threshold Voltage 柵極開启電壓(I_D =250uA,V_{GS}= V_{DS})	$V_{GS(th)}$	1	—	3	V
Diode Forward Voltage Drop 內附二極管正向壓降(I_{SD}=1A,V_{GS}=0V)	V_{SD}	—	—	1.5	V
Zero Gate Voltage Drain Current 零柵壓漏極電流(V_{GS}=0V, V_{DS}= 60V)	I_{DSS}	—	—	1	uA
Gate Body Leakage 柵極漏電流(V_{GS}=±20V, V_{DS}=0V)	I_{GSS}	—	—	±100	nA
Static Drain-Source On-State Resistance 静态漏源導通電阻(I_D=2.3A,V_{GS}=10V) (I_D=2A,V_{GS}=4.5V)	$R_{DS(ON)}$	—	—	156 192	mΩ
Input Capacitance 輸入電容 (V_{GS}=0V, V_{DS}=25V,f=1MHz)	C_{ISS}	—	—	250	pF
Common Source Output Capacitance 共源輸出電容(V_{GS}=0V, V_{DS}=25V,f=1MHz)	C_{OSS}	—	—	35	pF
Reverse Transfer Capacitance 回饋電容 (V_{GS}=0V, V_{DS}=25V,f=1MHz)	C_{RSS}	—	—	20	pF
Turn-ON Time 开启時間 (V_{DS}=30V, I_D=200mA, R_{GEN}=25Ω)	$t_{(on)}$	—	—	10	ns
Turn-OFF Time 关断時間 (V_{DS}=30V, I_D=200mA, R_{GEN}=25Ω)	$t_{(off)}$	—	—	20	ns

1. FR-5=1.0×0.75×0.062in.
2. Alumina=0.4×0.3×0.024in.99.5%alumina.
3. Pulse Width≤300 μs; Duty Cycle≤2.0%.

■TYPICAL CHARACTERISTIC CURVE
典型特性曲线

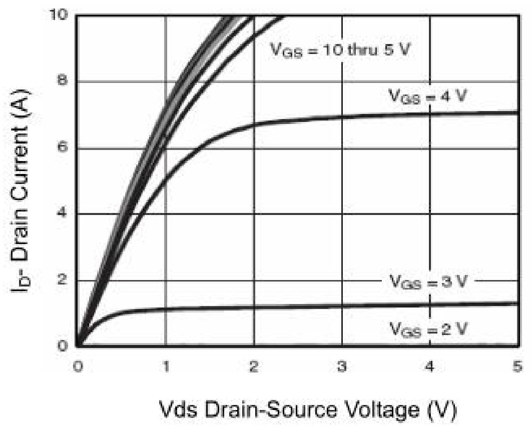


Fig 1: Output Characteristics

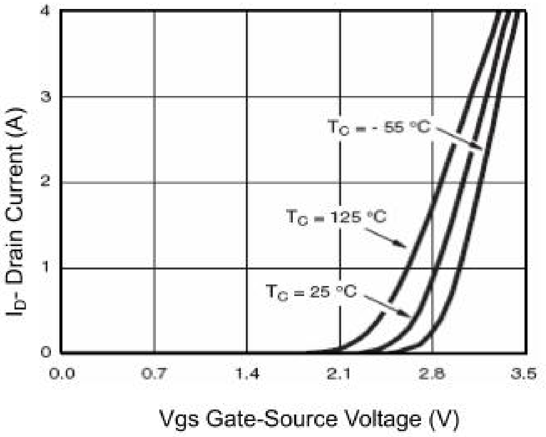


Figure 2: Transfer Characteristics

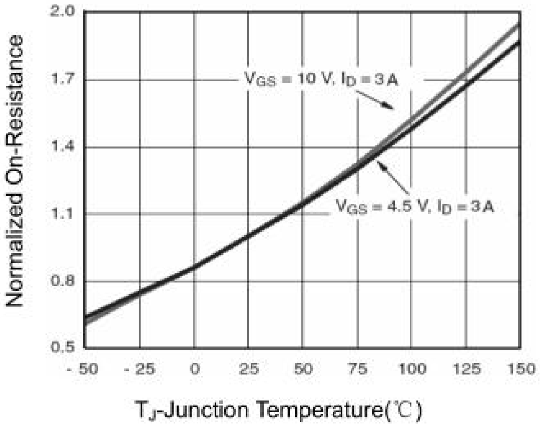


Figure 3: On-Resistance vs. Temperature

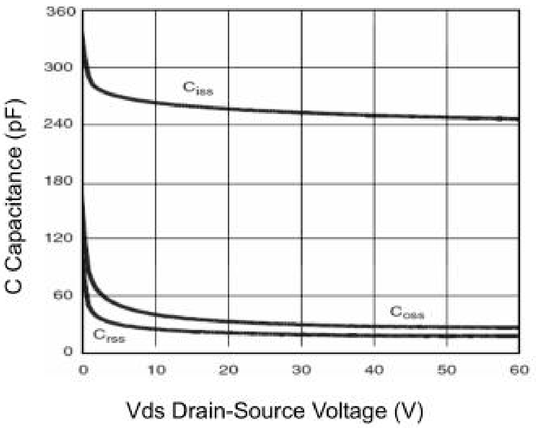


Figure 4: Capacitance Characteristics

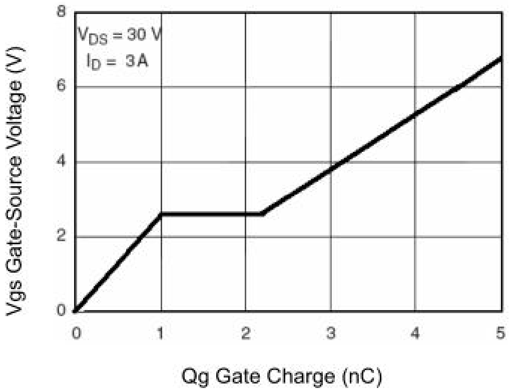


Figure 5: Gate-Charge Characteristics

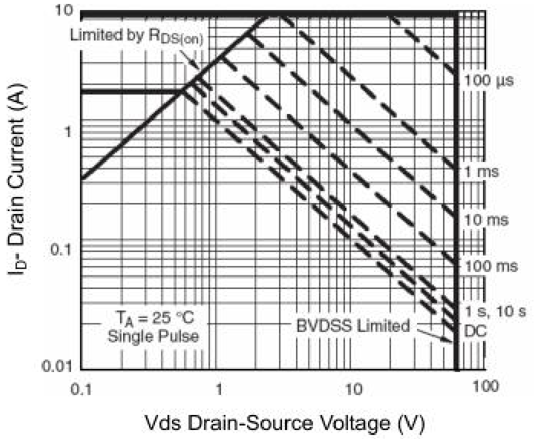


Figure 6: Safe Operating Area